

Amendment to IMPELLER AND METHOD OF MANUFACTURING SAME
Reuel S. Orocio, inventor
Serial No. 10/047,865
Filed January 15, 2002
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REMARKS/ARGUMENTS

Claim 3 has now been rewritten in independent form. Since the subject matter in Claim 3 has been deemed to be allowable, it is now believed that as Claim 3 has been rewritten in independent form that Claim 3 is in condition for formal allowance.

The specification has been amended regarding the use of reference numeral 10 by deleting such. It is now believed that the drawing corresponds to the description and no amendment of the drawing is required.

Additionally, the Examiner rejected the drawings because reference numeral 33 was allegedly not included within the specification. The Examiner's attention is to be called to page 7, line 4, where reference numeral 33 is discussed.

Errors have been discovered in the specification and have now been corrected by this amendment.

The originally submitted claims have been rejected under 35 U.S.C. §102(e) as being anticipated by a U.S. Patent Application Publication US 2002/0106277. This rejection is respectfully traversed.

Enclosed, herewith, is a Declaration signed by the inventor which clearly references that applicant had invented the subject invention prior to the filing date of this application.

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The Patent Agent of Record, Jack C. Munro, received a Disclosure on this invention that was dated October 31, 2001, which is over one month prior to the filing date of this application. This Disclosure to the Patent Agent of Record resulted in the production of the subject application, which was filed a little over a month after the filing of the aforementioned U.S. Patent Application Publication.

Additionally, applicant is having difficulty understanding the invention of this U.S. Patent Application Publication. The single independent claim of this application refers to a cylindrical area ratio being between 1.0 and 2.0. Applicant is not able to ascertain what constitutes this cylindrical area ratio. It seems that this cylindrical area ratio is measured in relation to an impeller axis 16. As to where the impeller axis 16 is taken, this is not clearly understood by applicant. It appears that the impeller axis is transverse to the rotational axis of the impeller. It would appear to applicant that the impeller axis should be the rotational axis. Therefore, as to where the impeller axis is taken is not clearly understood. However, it does appear that applicant's impeller does not have a cylindrical area ratio between 1.0 and 2.0 which is defined within the single independent claim that is submitted within this application.

Additionally, the single independent claim of this

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application has stated that the top shroud has curvature in a plane that contains the impeller axis. This is also not understood since it appears that the top shroud is spaced some distance from this impeller axis. Therefore, applicant is not able to understand how the impeller axis could be deemed to be falling within the curvature of the top shroud since there is some spacing distance therebetween. In any event, it appears that the subject impeller of the present invention does not have this limitation.

As best can be determined by applicant, it is believed that the invention defined by applicant in the present application does not fall within the scope of the claims of this cited Patent Application Publication.

It is respectfully submitted that applicant has now sworn back of this Patent Application Publication and that this Application Publication is not able to be used as a reference against the subject matter of the present application.

It is believed that the claims that are submitted within the subject application constitute allowable subject matter and should be allowed.

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The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to account No. 13-4899.

Respectfully submitted,



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The paragraph beginning at page 4, line 16, has been replaced with the following rewritten paragraph:

Referring particularly to the drawings, there is shown a pump which has a pump housing 12. The pump housing 12 is designed to be connected to a motor housing 13. The motor housing 13 is to include an electrically operated motor which when operated will cause rotation of a motor shaft 14. The free outer end of the motor shaft 14 includes a series of threads 16. The motor shaft 14 includes an axis of rotation 18.

The paragraph beginning at page 5, line 8, has been replaced with the following rewritten paragraph:

The pump impeller 34 has a shroud 36 which is basically disc-shaped. The shroud 36 includes an annular inlet ring 38. The annular inlet ring 38 is centrally formed within the shroud 36 so that in essence the shroud 36 is the shape of a ring. The annular inlet ring 38 is rotatably mounted within the annular groove 32. Annular inlet ring 38 has an inlet opening 40. Mounted on the inside surface of the shroud 36 are a plurality of vanes 42. Each vane 42 is defined as being arcuate and extends from a hub 44 to the peripheral edge 35 of shroud 36. The arrangement of the vanes 42 is deemed to be a matter of choice with a typical arrangement being where the vanes 42 are basically all of the same length and of the same curvature, as shown in the drawings. However, the

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length of the vanes 42 and their pattern of arrangement and configuration could be altered without departing from the scope of this invention. There is shown eight in number of the vanes 42. Also, the number of the vanes 42 could be increased or decreased without departing from the scope of this invention.--

The paragraph beginning at page 6, line 26, has been replaced with the following rewritten paragraph:

Pump impeller 34, is rotated by rotating of shaft 14 within shaft receiving opening 15 found in motor housing 13. Rotating pump impeller 34 causes liquid to be drawn from passage 29 into enclosing chamber 37, propelled radially outwardly past peripheral edge 35 through vane openings 33 (eight in number) into discharge passage 31 of discharge conduit 28. Because the pump impeller 34 is not formed of several parts but is formed of one part from the shaft sleeve 52 to the annular inlet ring 38 of the shroud 36, the axis of rotation 18 will be precisely aligned (within .006 inches) with the longitudinal center axis 54 preventing any kind of a wobble which is common when constructing of the pump impeller 34 of a multitude of parts which are welded together inherently creating a misalignment between the axes 18 and 54. The maximum misalignment of .006 inches is totally acceptable.